http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> s US 20070232598/pn
L1            1 US 20070232598/PN
                (US20070232598/PN)

=> d l1 ibib abs ti hitind all

L1   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:         2005:470209  CAPLUS  Full-text
DOCUMENT NUMBER:          143:2638
TITLE:                    Synergistic insecticidal compositions
comprising
                          nicotinic receptor agonists and antagonists
and
                          anthranilic acid amides
INVENTOR(S):              Funke, Christian; Fischer, Reiner; Fischer,
Ruediger;
                          Hungenberg, Heike; Andersch, Wolfram;
Thielert,
                          Wolfgang; Kraus, Anton
PATENT ASSIGNEE(S):       Bayer Cropscience Aktiengesellschaft, Germany
SOURCE:                   PCT Int. Appl., 71 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
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     WO 2005048711         A1    20050602    WO 2004-EP12328
20041030
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GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,
SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW
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ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,
DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT,
RO, SE,
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MR, NE,
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SN, TD, TG
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AU 2004290500 A1 20050602 AU 2004-290500
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IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
BR 2004016033 A 20070102 BR 2004-16033
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IN 2006DN02510 A 20070518 IN 2006-DN2510
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PRIORITY APPLN. INFO.: DE 2003-10353278 A
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DE 2004-102004006075A
20040207
WO 2004-EP12328 W
20041030
OTHER SOURCE(S): MARPAT 143:2638
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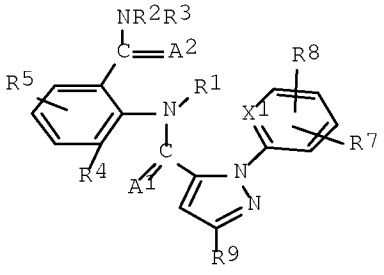

I

AB Synergistic insecticidal compns. comprising nicotinic receptor agonists and antagonists RNACX:XE [R= H,(un)substituted acyl, alkyl, aryl, etc.; A = H, acyl, alkyl, aryl,etc; E = electron receptor; X = CH or N; Z = alkyl, OR, SR or NR2; ANCZ = cycle] and anthranilic acid amides I [A1, A2 = O or S; X1 = N or C10; R1 = H,(un)substituted alkyl, alkenyl, alkynyl or cycloalkyl, the substituents being R6, halo, CN, etc.; R2 = H, alkyl, alkenyl, alkynyl, cycloalkyl, alkoxy, etc.; R3 = H, alkyl, alkenyl, etc.; R2NR3 = ring; R4 = H, (halo)alkyl, (halo)alkenyl, etc.; R5, R8 = H, halo, (un)substituted (halo)alkyl, etc.; R6 = CH(:E1), LCH(E1), etc.; E1 = O, S, NH, N:S:O, N(NO)2, etc.; L = O, S, NH, etc.; R7 = H, halo, (halo)alkyl, (halo)alkoxy, etc.; R9 = halo, haloalkyl, haloalkoxy or halosulfinyl].

http://www.cas.org/support/stngen/stndoc/properties.html

=> S 131748-59-9/RN

L2 1 131748-59-9/RN

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NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

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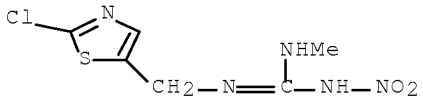
THE ESTIMATED COST FOR THIS REQUEST IS 6.85 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2009 ACS on STN
RN 131748-59-9 REGISTRY
CN Guanidine, N-[(2-chloro-5-thiazolyl)methyl]-N'-methyl-N''-nitro-
(CA
INDEX NAME)
OTHER NAMES:
CN CGA 322704
MF C6 H8 Cl N5 O2 S
CI COM
SR CA
LC STN Files: CA, CAPLUS, CASREACT, CHEMLIST, CIN, TOXCENTER,
USPAT2,
USPATFULL
DT.CA CAplus document type: Journal; Patent
RL.P Roles from patents: BIOL (Biological study); PREP
(Preparation); PROC
(Process); RACT (Reactant or reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: BIOL
(Biological
study); USES (Uses)
RL.NP Roles from non-patents: BIOL (Biological study); OCCU
(Occurrence);
PREP (Preparation); PRP (Properties)



http://www.cas.org/support/stngen/stndoc/properties.html

=> S 852326-20-6/RN

L3 1 852326-20-6/RN

=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

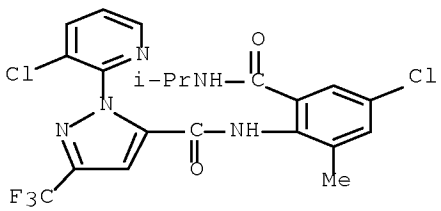
=> D L3 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.85 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2009 ACS on STN
RN 852326-20-6 REGISTRY
CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-, mixt. with (2E)-1-[(6-chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine (9CI) (CA INDEX NAME)
MF C21 H18 Cl2 F3 N5 O2 . C9 H10 Cl N5 O2
CI MXS
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); USES (Uses)

CM 1

CRN 500008-00-4
CMF C21 H18 Cl2 F3 N5 O2



CM 2

CRN 138261-41-3
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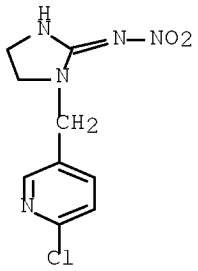

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E7            1     500008-49-1/RN
E8            1     500008-50-4/RN
E9            1     500008-51-5/RN
E10           1     500008-52-6/RN
E11           1     500008-53-7/RN
E12           1     500008-54-8/RN

=> set expand continuous
SET COMMAND COMPLETED

=> s e3
L4            1 500008-45-7/RN

=> d l4

L4   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2009 ACS on STN
RN   500008-45-7  REGISTRY
ED   Entered STN:  19 Mar 2003
CN   1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-
     [(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-  (CA
INDEX NAME)
OTHER NAMES:
CN   Altacor
CN   Chlorantraniliprole
CN   Coragen
CN   DKI 0001
CN   DPX-E 2Y45
CN   E 2Y45
CN   Rynaxypyr
DR   921612-71-7
MF   C18 H14 Br Cl2 N5 O2
CI   COM
SR   CA
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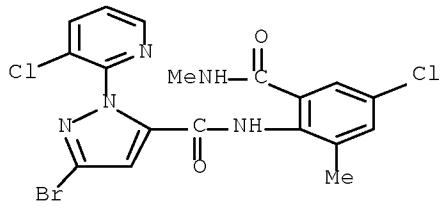
LC STN Files: ANABSTR, CA, CAPLUS, CASREACT, CBNB, RTECS*,
TOXCENTER,
      USPAT2, USPATFULL
        (*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

252 REFERENCES IN FILE CA (1907 TO DATE)
46 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
271 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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E17          1     131748-61-3/RN
E18          1     131748-62-4/RN
E19          1     131748-63-5/RN
E20          1     131748-64-6/RN
E21          1     131748-65-7/RN
E22          1     131748-66-8/RN
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E24          1     131748-68-0/RN

=> s e15
L5           1 131748-59-9/RN

=> d l5

L5   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2009 ACS on STN
RN   131748-59-9  REGISTRY
ED   Entered STN:  01 Feb 1991
CN   Guanidine, N-[(2-chloro-5-thiazolyl)methyl]-N'-methyl-N''-nitro-
(CA
     INDEX NAME)
OTHER NAMES:
CN   CGA 322704
MF   C6 H8 Cl N5 O2 S
CI   COM
SR   CA
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LC STN Files: CA, CAPLUS, CASREACT, CHEMLIST, CIN, TOXCENTER, USPAT2,
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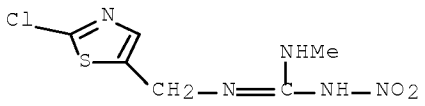

=> S 852326-21-7/RN

L7   1 852326-21-7/RN

=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L7 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.85 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2009 ACS on STN
RN 852326-21-7 REGISTRY
CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-
    methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-
    (trifluoromethyl)-, mixt. with [3-[(6-chloro-3-pyridinyl)methyl]-2-
    thiazolidinylidene]cyanamide (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H18 Cl2 F3 N5 O2 . C10 H9 Cl N4 S
CI MXS
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); USES (Uses)

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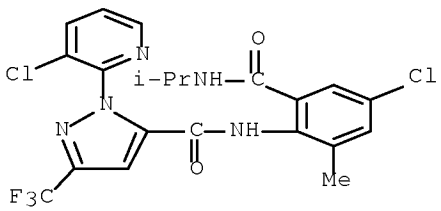

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CRN 111988-49-9
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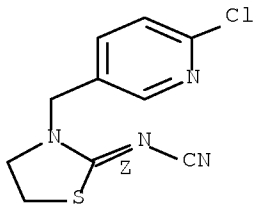

http://www.cas.org/support/stngen/stndoc/properties.html

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L8 1 852326-22-8/RN

=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L8 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.85 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L8 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2009 ACS on STN
RN 852326-22-8 REGISTRY
CN 1H-Pyrazole-5-carboxamide, N-[4-chloro-2-methyl-6-[[(1-methylethyl)amino]carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-3-(trifluoromethyl)-, mixt. with [C(E)]-N-[(2-chloro-5-thiazolyl)methyl]-N'-methyl-N''-nitroguanidine (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H18 Cl2 F3 N5 O2 . C6 H8 Cl N5 O2 S
CI MXS
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); USES (Uses)

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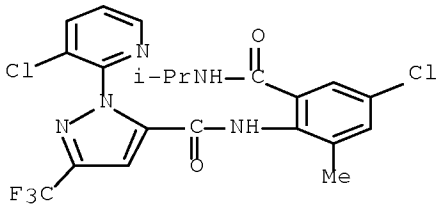

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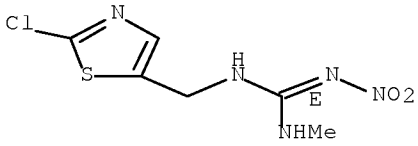

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SET COMMAND COMPLETED

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L9 1 500008-45-7/RN

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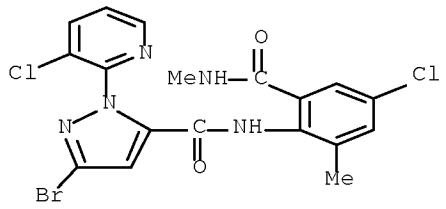
L9 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2009 ACS on STN
RN 500008-45-7 REGISTRY
ED Entered STN: 19 Mar 2003
CN 1H-Pyrazole-5-carboxamide, 3-bromo-N-[4-chloro-2-methyl-6-
    [(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)- (CA
INDEX NAME)
OTHER NAMES:
CN Altacor
CN Chlorantraniliprole
CN Coragen
CN DKI 0001
CN DPX-E 2Y45
CN E 2Y45
CN Rynaxypyr
DR 921612-71-7
MF C18 H14 Br Cl2 N5 O2
CI COM
SR CA
LC STN Files: ANABSTR, CA, CAPLUS, CASREACT, CBNB, RTECS*,
TOXCENTER,
      USPAT2, USPATFULL
        (*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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             46 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            271 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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E41   1   210880-94-7/RN
E42   1   210880-95-8/RN
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E46   1   210880-99-2/RN
E47   1   210881-00-8/RN

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L10          1 210880-92-5/RN

=> d l10

L10  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2009 ACS on STN
RN   210880-92-5  REGISTRY
ED   Entered STN:  06 Sep 1998
CN   Guanidine, N-[(2-chloro-5-thiazolyl)methyl]-N'-methyl-N''-nitro-,
[C(E)]-
     (CA INDEX NAME)
OTHER NAMES:
CN   Apacz
CN   Arena
CN   Belay
CN   Celero
CN   Clothianidin
CN   Clutch
CN   Clutch (insecticide)
CN   Dantotsu
CN   Fullswing
CN   Poncho
CN   Takeloc CLMN 10
CN   Takeloc MC 50E
CN   TI 435
CN   TM 44401
CN   V 10170
FS   STEREOSEARCH
DR   205510-53-8
MF   C6 H8 Cl N5 O2 S
CI   COM
SR   CA
LC   STN Files:   ANABSTR, BIOSIS, CA, CAPLUS, CASREACT, CBNB,
CHEMCATS,
       CHEMLIST, CSCHEM, HSDB*, MRCK*, PATDPASPC, RTECS*, TOXCENTER,
ULIDAT,
       USPAT2, USPATFULL
         (*File contains numerically searchable property data)

Double bond geometry as shown.
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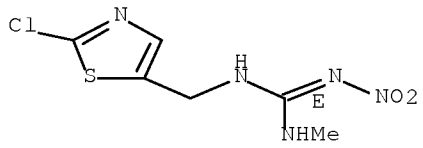


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http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> s l9
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L11        271 L9

=> s l10
L12        613 L10

=> s l11 and l12
L13         73 L11 AND L12

=> s l13 and pesticides/ct
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L14          7 L13 AND PESTICIDES/CT

=> s l13 and insecticides/ct
         80033 INSECTICIDES/CT
L15         63 L13 AND INSECTICIDES/CT

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       4506011 AY<2003
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L18          0 L16 NOT L17

=> d l17 ibib abs ti hitind

L17  ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:        2003:242097  CAPLUS  Full-text
DOCUMENT NUMBER:         138:267201
TITLE:                   Pesticidal compositions for coating plant
propagation
                         material containing anthranilamides
INVENTOR(S):             Berger, Richard Alan; Flexner, John Lindsey
PATENT ASSIGNEE(S):      E. I. Du Pont de Nemours & Co., USA
SOURCE:                  PCT Int. Appl., 147 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ----------------    ----   --------    --------------------   ----
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     WO 2003024222        A1    20030327    WO 2002-US30302
20020910 <--
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CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD,
GE, GH,
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GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,
CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

TW 283164 B 20070701 TW 2002-91118199 20020813 <--

CA 2458163 A1 20030327 CA 2002-2458163 20020910 <--

AU 2002341819 B9 20030401 AU 2002-341819 20020910 <--

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AU 2002341819 B2 20070719

EP 1427285 A1 20040616 EP 2002-775972 20020910 <--

EP 1427285 B1 20070822
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JP 2005502716 T 20050127 JP 2003-528126 20020910 <--

JP 3770495 B2 20060426

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HU 2004001893 A3 20051128

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IN 2004MN00090 A 20070706 IN 2004-MN90 20040205 <--

MX 2004002648 A 20040607 MX 2004-2648 20040319 <--

KR 783260 B1 20071206 KR 2004-704134 20040320 <--

IN 2005MN00443 A 20050930 IN 2005-MN443

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PRIORITY APPLN. INFO.: US 2001-323941P P
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WO 2002-US30302 W
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OTHER SOURCE(S): MARPAT 138:267201
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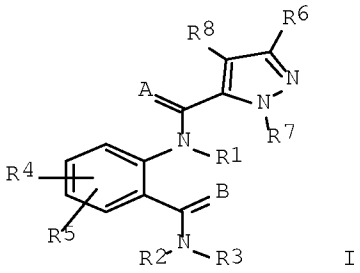

I

AB An invertebrate pest control composition for coating a propagule comprises (1) a biol. effective amount of an anthranilamide compds. I (Markush included), an N-oxide thereof or an agriculturally suitable salt thereof, and (2) a film former or adhesive agent. Arthropodicidal composition containing anthranilamide compds. I may further comprise addnl. biol. active compds. selected from arthropodicides of the group consisting of pyrethroids, carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones, γ-aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics, and fungicides. The propagule is a seed of cotton, maize, soybean, rice, etc., or a rhizome, tuber, bulb or corm, or viable division thereof, of potato, sweet potato, garden onion, tulip, daffodil, crocus hyacinth, etc., or is a stem or leaf cutting.

=> d l17 ibib abs ti hitind 2-3

L17 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:154155 CAPLUS Full-text
DOCUMENT NUMBER: 138:200332
TITLE: Arthropodicidal anthranilamides
INVENTOR(S): Lahm, George Philip; Selby, Thomas Paul; Stevenson,
Thomas Martin
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: PCT Int. Appl., 82 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

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GE, GH,
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LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ,
OM, PH,
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TT, TZ,
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     CN 100391338         C     20080604
     RU 2283840           C2    20060920    RU 2004-107505
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LI, LU, MC, NL, PT, SE, SK, TR

ZA 2003009911	A	20050311	ZA 2003-9911	20031222 <--
US 20040198984	A1	20041007	US 2004-483168	20040107 <--
US 7232836	B2	20070619		
IN 2004MN00015	A	20061222	IN 2004-MN15	20040108 <--
MX 2004001320	A	20040520	MX 2004-1320	20040211 <--
JP 2005041880	A	20050217	JP 2004-258923	20040906 <--
IN 2005MN00444	A	20050930	IN 2005-MN444	20050517 <--
US 20070225336	A1	20070927	US 2007-787770	20070418 <--

PRIORITY APPLN. INFO.:	US 2001-311919P	P 20010813 <--
	US 2001-324128P	P 20010921 <--
	US 2002-369661P	P 20020402 <--
	US 2001-341894P	P 20011219 <--
	US 2002-369659P	P 20020402 <--
	EP 2002-750482	A3 20020813 <--
	JP 2003-520290	A3 20020813 <--
	WO 2002-US25615	W 20020813 <--
	US 2004-483168	A3 20040107
	IN 2004-MN15	A3 20040108

OTHER SOURCE(S): MARPAT 138:200332

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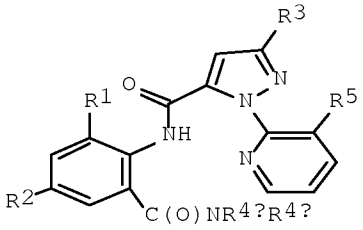

I

AB Anthranilamides I (Markush included), their N-oxides and agriculturally suitable salts are prepared as arthropodicides for

controlling invertebrate pests. Arthropodicidal compns. containing anthranilamides I may further include addnl. biol. active compds. or agents selected from arthropodicides of the group consisting of pyrethroids, carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones, γ-aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics, Bacillus thuringiensis sp. aizawai, B. thuringiensis sp. kurstaki, B. thuringiensis delta endotoxin, baculoviruses, and entomopathogenic bacteria, viruses and fungi.

L17 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2003:154154 CAPLUS Full-text
DOCUMENT NUMBER: 138:200331
TITLE: Method for controlling particular insect pests by
applying anthranilamide compounds
INVENTOR(S): Lahm, George Philip; McCann, Stephen Frederick; Patel,
Kanu Maganbhai; Selby, Thomas Paul; Stevenson, Thomas
Martin
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: PCT Int. Appl., 150 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003015518	A1	20030227	WO 2002-US25613	20020813 <--
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ZA 2003009911 A 20050311 ZA 2003-9911
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JP 2003-520290 A3
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OTHER SOURCE(S): MARPAT 138:200331
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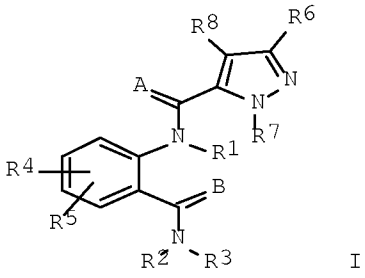

I

AB Anthranilamide compds. I (Markush included), N-oxides or an agriculturally suitable salts thereof are prepared as insecticides for controlling lepidopteran, homopteran, hemipteran, thysanopteran and coleopteran insect pests. Insecticidal composition containing anthranilamide compds. I may further comprise addnl. biol. active compds. selected from arthropodicides of the group consisting of pyrethroids, carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones, γ-aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics.

http://www.cas.org/support/stngen/stndoc/properties.html

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L19  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2009 ACS on STN
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ED   Entered STN:  06 Sep 1998
CN   Guanidine, N-[(2-chloro-5-thiazolyl)methyl]-N'-methyl-N''-nitro-,
[C(E)]-
     (CA INDEX NAME)
OTHER NAMES:
CN   Apacz
CN   Arena
CN   Belay
CN   Celero
CN   Clothianidin
CN   Clutch
CN   Clutch (insecticide)
CN   Dantotsu
CN   Fullswing
CN   Poncho
CN   Takeloc CLMN 10
CN   Takeloc MC 50E
CN   TI 435
CN   TM 44401
CN   V 10170
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LC   STN Files:   ANABSTR, BIOSIS, CA, CAPLUS, CASREACT, CBNB,
CHEMCATS,
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ULIDAT,
       USPAT2, USPATFULL
         (*File contains numerically searchable property data)

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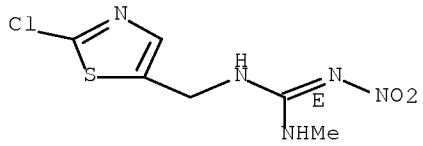


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L21 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
TI Synergistic insecticide mixture preparation of azadirachtin and neonicotine series insecticides
AB The title preparation contains azadirachtin 0.05-80, neonicotine series insecticides 1-80, and addnl. adjuvant to 100%. The preparation can be emulsible concentrate, wettable powder, oil suspension, microemulsion, capsule, water dispersible powder, effervescent tablet, etc. The azadirachtin may be from Azadirachta indica oil, Azadirachta indica extract, or crude azadirachtin; and the neonicotine from flonicamid, clothianidin, dinotefuran, nithiazine, thiacloprid, acetamiprid, etc. The product has long acting period.
ACCESSION NUMBER: 2004:830370 CAPLUS Full-text
DOCUMENT NUMBER: 141:327128
TITLE: Synergistic insecticide mixture preparation of azadirachtin and neonicotine series insecticides
INVENTOR(S): Xu, Hanhong; Tian, Yongqing
PATENT ASSIGNEE(S): Huanan University of Agriculture, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 18 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1411723	A	20030423	CN 2002-134906	20021009 <--
CN 1175742	C	20041117		

PRIORITY APPLN. INFO.: CN 2002-134906 20021009 <--
IC ICM A01N065-00
CC 5-4 (Agrochemical Bioregulators)
ST azadirachtin neonicotine synergistic insecticide formulation Thiacloprid Acetamiprid
IT Azadirachta indica
Pesticide formulations
(synergistic insecticide mixture preparation of azadirachtin and
neonicotine series insecticides)
IT Insecticides
(synergistic; synergistic insecticide mixture preparation of azadirachtin and neonicotine series insecticides)
IT 11141-17-6, Azadirachtin A 58842-20-9, Nithiazine 95507-03-2, Azadirachtin B 99399-65-2, Azadirachtin D 111988-49-9, Thiacloprid
118855-02-0, Azadirachtin F 134788-15-1, Azadirachtin H 134788-16-2,
Azadirachtin I 135410-20-7, Acetamiprid 142647-73-2, Azadirachtin K
145686-15-3, Azadirachtin E 145686-16-4, Azadirachtin G

150824-47-8,
Nitenpyram 153719-23-4, Thiamethoxam 158062-67-0, Flonicamid
165252-70-0, Dinotefuran 210880-92-5, Clothianidin
724428-47-1, Azadirachtin L
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(synergistic insecticide mixture preparation of azadirachtin
and
neonicotine series insecticides)

L21 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
TI Synergistic insecticidal, acaricidal, nematocidal, and
bactericidal compositions, and pest control with them
AB Title compns. contain GC6H4C(CN):C(A)OB [A = (un)substituted
heterocyclyl; B = H, C1-4 haloalkyl, tetrahydropyranyl, SiMe3,
alkali metal, etc.; G = H, halo, C1-6 alkyl, (un)substituted C3-6
cycloalkyl, C1-4 haloalkoxy, C1-4 alkylsulfinyl, C1-4
alkylsulfonyl, NO2, CN, naphthyl, etc.] and ≥1 compds. chosen from
conventional pesticides, e.g. anilazine, benalaxyl, benomyl,
binapacryl, etc. Thus, concomitant use of 2-(4-chlorophenyl)-3-
(1,3,4-trimethylpyrazol-5-yl)-3-hydroxyacrylonitrile and Ca
polysulfide showed synergistic acaricidal activity against Aculops
pelekassi.
ACCESSION NUMBER: 2004:447099 CAPLUS Full-text
DOCUMENT NUMBER: 141:2859
TITLE: Synergistic insecticidal, acaricidal,
nematocidal, and bactericidal compositions,
and pest
control with them
INVENTOR(S): Miyake, Toshiro; Inoue, Kohei
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 88 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004155693	A	20040603	JP 2002-322041	20021106 <--

PRIORITY APPLN. INFO.: JP 2002-322041
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OTHER SOURCE(S): MARPAT 141:2859
IC ICM A01N043-56
ICS A01N029-12; A01N037-02; A01N037-36; A01N041-02; A01N043-36;
A01N043-58; A01N043-76; A01N043-78; A01N043-80; A01N047-14;
A01N047-24; A01N047-34; A01N055-04; A01N057-10; A01N057-14;
A01N057-16; A01N059-02; C07D231-12
CC 5-4 (Agrochemical Bioregulators)
Section cross-reference(s): 25
ST synergistic acaricide acrylonitrile calcium polysulfide;
insecticide nematocide bactericide synergistic acrylonitrile
IT Fungicides
(agrochem., synergistic; preparation of acrylonitriles and
synergistic pesticides containing them)

IT Lentinula edodes
(extract; preparation of acrylonitriles and synergistic pesticides
containing them)
IT Acaricides
Antibacterial agents
Insecticides
Nematocides
(synergistic; preparation of acrylonitriles and synergistic pesticides containing them)

L21 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
TI Fenoxanil-containing bactericidal and insecticidal composites
AB The title pesticidal composite contains fenoxanil, and at least one bactericide or at least one insecticide. The bactericide may be from carpropamid, jinggangmycin, bismerthiazol, isocyanuric acid, oxolinic acid; and the insecticide from triazophos, chlorpyrifos, pyraclofos, pyrethrins (etofenprox), buprofezin, monosultap, bisultap, cartap, fipronil, acetamiprid, nitenpyram, imidacloprid, dinotefuran, thiamethoxam, thiacloprid and clothianidin. The ratio of fenoxanil to another bactericide is 1:15-15:1 for the binary compound; and the ratio of fenoxanil : another bactericide : insecticide is from 1:1-20:1-30 to 20:1-. The concentration of the available component in the compound is 0.05-99.5%. The product is highly effective against rice disease.
ACCESSION NUMBER: 2003:1008669 CAPLUS Full-text
DOCUMENT NUMBER: 140:194924
TITLE: Fenoxanil-containing bactericidal and insecticidal
composites
INVENTOR(S): Hu, Naidong; Ma, Yunsheng; Shi, Qingling
PATENT ASSIGNEE(S): Guo, Xiao, Peop. Rep. China; Wang, Lijuan; Hao,
Chunyan
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 12 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1393134	A	20030129	CN 2001-129504	20010622 <--
CN 1218637	C	20050914		
CN 1593143	A	20050316	CN 2004-10004524	20010622 <--

PRIORITY APPLN. INFO.: CN 2001-129504 A3 20010622 <--
IC ICM A01N047-40
CC 5-6 (Agrochemical Bioregulators)
IT Cooperative phenomena
(synergism; fenoxanil-containing bactericidal and insecticidal composites)

IT 87-90-1, Trichloroisocyanuric acid 108-80-5D, Isocyanuric acid, chloro
and bromo derivs. 108-94-1, Cyclohexanone, biological studies
151-21-3, Sodium dodecylsulfate, biological studies 1343-98-2, Silicic
acid 2782-57-2, Dichloroisocyanuric acid 2921-88-2, Chlorpyrifos
7783-20-2, Ammonium sulfate, biological studies 8061-51-6, Sodium
lignosulfonate 14698-29-4, Oxolinic acid 15263-53-3, Cartap
24017-47-8, Triazophos 29547-00-0, Monosultap 52207-48-4, Bisultap
58194-43-7, Jinggangmycin 69327-76-0, Buprofezin 79319-85-0,
Bismerthiazol 80844-07-1, Etofenprox 89784-60-1, Pyraclofos
104030-54-8, Carpropamid 111988-49-9, Thiacloprid 115852-48-7,
Fenoxanil 120068-37-3, Fipronil 135410-20-7, Acetamiprid
138261-41-3, Imidacloprid 150824-47-8, Nitenpyram 153719-23-4,
Thiamethoxam 165252-70-0, Dinotefuran 210880-92-5,
Clothianidin 661465-28-7, Fenoxanil-jinggangmycin mixture 661465-29-8,
Fenoxanil-oxolinic acid mixture 661465-35-6
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(fenoxanil-containing bactericidal and insecticidal composites)

L21 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
TI Synergistic insecticidal mixtures
AB Synergistic insecticidal mixts. contain clothianidin and abamectin, emamectin or emamectin benzoate, methiocarb, β-cyfluthrin or λ-cyhalothrin.
ACCESSION NUMBER: 2003:610145 CAPLUS Full-text
DOCUMENT NUMBER: 139:129421
TITLE: Synergistic insecticidal mixtures
INVENTOR(S): Andersch, Wolfram; Erdelen, Christoph; Jeschke, Peter
PATENT ASSIGNEE(S): Bayer CropScience AG, Germany
SOURCE: PCT Int. Appl., 77 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003063592	A1	20030807	WO 2003-EP478	20030120 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR,

TT, TZ,
UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
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KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES,
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK,
TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10203688	A1	20030807	DE 2002-10203688	20020131 <--
IN 2003MU00039	A	20050128	IN 2003-MU39	20030113 <--
CA 2474086	A1	20030807	CA 2003-2474086	20030120 <--
EP 1473997	A1	20041110	EP 2003-701526	20030120 <--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
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IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

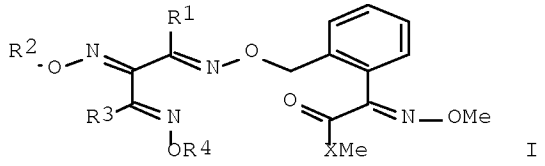
BR 2003007356	A	20041214	BR 2003-7356	20030120 <--
CN 1646017	A	20050727	CN 2003-807691	20030120 <--
CN 100360028	C	20080109		
NZ 534368	A	20060224	NZ 2003-534368	20030120 <--
CN 1895048	A	20070117	CN 2006-10100199	20030120 <--
CN 101107929	A	20080123	CN 2007-10006746	20030120 <--
AU 2003202575	B2	20081113	AU 2003-202575	20030120 <--
EG 23409	A	20050621	EG 2003-77	20030127 <--
ZA 2004005968	A	20050727	ZA 2004-5968	20040727 <--
MX 2004007298	A	20041029	MX 2004-7298	20040728 <--
US 20050222051	A1	20051006	US 2004-502527	20041117 <--
US 7097848	B2	20060829		
US 20060194747	A1	20060831	US 2006-415811	20060502 <--
AU 2008243057	A1	20081127	AU 2008-243057	20081031 <--

PRIORITY APPLN. INFO.:		DE 2002-10203688	A 20020131 <--
		AU 2003-202575	A3 20030120
		CN 2003-807691	A3 20030120
		WO 2003-EP478	W 20030120
		US 2004-502527	A3 20041117

IC ICM A01N051-00

ICS A01N053-00; A01N043-90; A01N053-08; A01N047-22
CC 5-4 (Agrochemical Bioregulators)
ST synergism insecticide clothianidin mixt
IT Insecticides
(synergistic; compns. containing clothianidin)
IT 210880-92-5D, Clothianidin, mixts. containing 411221-42-6
569342-67-2, Clothianidin-abamectin mixture 569342-69-4
569342-71-8
569342-73-0 569342-75-2
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(synergistic insecticidal composition)
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
TI Synergistic fungicidal mixtures of oxime ether derivatives with clothianidin
GI



I

AB Synergistic fungicidal mixts. comprise an oxime ether derivs. I (X = NH or O; R1, R3 = H, cyano, alkyl, cyclopropyl, or haloalkyl; R2, R4 = H, alkyl, alkenyl, alkynyl, haloalkyl, haloalkenyl, or haloalkynyl) and clothianidin.
ACCESSION NUMBER: 2003:570704 CAPLUS Full-text
DOCUMENT NUMBER: 139:96697
TITLE: Synergistic fungicidal mixtures of oxime ether derivatives with clothianidin
INVENTOR(S): Grote, Thomas; Ammermann, Eberhard; Stierl, Reinhard;
Lorenz, Gisela; Stammler, Gerd; Schelberger, Klaus;
Haden, Egon
PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

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     WO 2003059067        A1    20030724    WO 2003-EP12
20030103 <--
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CH, CN,
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ,
OM, PH,
             PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR,
TT, TZ,
             UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
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EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK,
TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2003205564        A1    20030730    AU 2003-205564
20030103 <--
     CN 1615079           A     20050511    CN 2003-802271
20030103 <--
     CN 1320855           C     20070613
     JP 2005524623        T     20050818    JP 2003-559243
20030103 <--
     IN 2004CN01794       A     20060224    IN 2004-CN1794
20040811 <--
PRIORITY APPLN. INFO.:                       DE 2002-10201794    A
20020117 <--
                                             WO 2003-EP12        W
20030103
OTHER SOURCE(S):         MARPAT 139:96697
IC   ICM  A01N047-44
     ICS  A01N037-36
CC   5-2 (Agrochemical Bioregulators)
ST   synergism fungicide oxime ether deriv mixt clothianidin
IT   Fungicides
        (synergistic; mixts. of oxime ether derivs. with
        clothianidin)
IT   560069-47-8
     RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
        (synergistic fungicidal composition)
IT   210880-92-5D, Clothianidin, mixts. with oxime ether derivs.
     RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
        (synergistic fungicidal compns.)
REFERENCE COUNT:         4     THERE ARE 4 CITED REFERENCES AVAILABLE
FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L21  ANSWER 6 OF 12  CAPLUS  COPYRIGHT 2009 ACS on STN
TI   Synergistic insecticidal fungicidal compositions for rice paddy,
     and method for control of insects in rice paddy
GI
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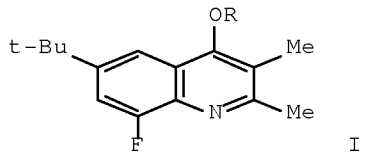

I

AB Title compns. contain quinolines I (R = H, COR1, CO2R1, COCH2OMe, COCH2O2CMe; R1 = C1-4 alkyl) or their salts and insecticides for rice paddy. Thus, a wettable composition containing 20 ppm I (R = Ac) and 100 ppm MEP showed 100% fungicidal activity against Pyricularia oryzae and 97% insecticidal activity against Laodelphax striatellus.

ACCESSION NUMBER: 2003:143338 CAPLUS Full-text
DOCUMENT NUMBER: 138:182512
TITLE: Synergistic insecticidal fungicidal compositions for rice paddy, and method for control of insects in rice paddy
INVENTOR(S): Teraoka, Takeshi; Matsumura, Makoto
PATENT ASSIGNEE(S): Meiji Seika Kaisha, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003055115	A	20030226	JP 2001-246035	20010814 <--

PRIORITY APPLN. INFO.: JP 2001-246035 20010814 <--
OTHER SOURCE(S): MARPAT 138:182512
IC ICM A01N043-42
ICS A01N031-14; A01N043-40; A01N043-56; A01N043-88; A01N047-12; A01N047-22; A01N051-00; A01N055-00; A01N057-12; A01N057-14
CC 5-4 (Agrochemical Bioregulators)
ST MEP quinoline synergistic insecticide fungicide rice; agrochem fungicide insecticide MEP quinoline rice
IT Fungicides
(agrochem.; synergistic insecticidal fungicidal compns. containing quinolines for rice paddy)
IT Insecticides
Oryza sativa
(synergistic insecticidal fungicidal compns. containing quinolines for rice paddy)

L21 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
TI Synergistic fungicidal and plant growth stimulating composition

AB A mixture of fludioxonil, metalaxyl and a strobilurin fungicide achieves markedly enhanced action against plant pathogens and is suitable for improving the growth of plants when applied to plants, parts of plants, seeds, or at their locus of growth. Optionally, the composition comprises a neonicotinoid or phenylpyrazole insecticide as well.

ACCESSION NUMBER: 2002:977567 CAPLUS Full-text
DOCUMENT NUMBER: 138:34684
TITLE: Synergistic fungicidal and plant growth stimulating composition
INVENTOR(S): Watrin, Clifford
PATENT ASSIGNEE(S): Syngenta Participations A.-G., Switz.
SOURCE: PCT Int. Appl., 18 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002102148	A2	20021227	WO 2002-US18933	20020613 <--
WO 2002102148	A3	20030327		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2449831	A1	20021227	CA 2002-2449831	20020613 <--
AU 2002306164	A1	20030102	AU 2002-306164	20020613 <--
US 20030130119	A1	20030710	US 2002-170902	20020613 <--
US 7071188	B2	20060704		
EP 1416793	A2	20040512	EP 2002-734796	20020613 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
MX 2003011494	A	20040319	MX 2003-11494	20031211 <--

PRIORITY APPLN. INFO.: US 2001-298171P P 20010614 <--
WO 2002-US18933 W 20020613 <--

L21 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
TI Synergistic insecticide mixtures containing sodium channel blockers
AB The invention relates to synergistic insecticidal mixts. containing at least one sodium ion channel blocker and (Z)-3-(6-chloro-3-pyridylmethyl)-1,3-thiazolidin-2-ylidenecyanamide or (E)-1-(2-chloro-1,3-thiazol-5-ylmethyl)-3-methyl-2-nitroguanidine or 1-[(6-chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine.
ACCESSION NUMBER: 2002:555277 CAPLUS Full-text
DOCUMENT NUMBER: 137:105180
TITLE: Synergistic insecticide mixtures containing sodium channel blockers
INVENTOR(S): Bretschneider, Thomas; Fuchs, Rainer; Andersch, Wolfram; Ebbinghaus-Kintscher, Ulrich; Erdelen, Christoph
PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002056691	A1	20020725	WO 2002-EP59	20020107 <--
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10134720	A1	20020725	DE 2001-10134720	20010717 <--
IN 2001MU01216	A	20050304	IN 2001-MU1216	20011226 <--
AU 2002228035	A1	20020730	AU 2002-228035	

20020107 <--
EP 1359803 A1 20031112 EP 2002-709996
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EP 1359803 B1 20071219
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
BR 2002006550 A 20040622 BR 2002-6550
20020107 <--
JP 2004521888 T 20040722 JP 2002-557210
20020107 <--
CN 1714645 A 20060104 CN 2005-10084426
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CN 100415097 C 20080903
CN 1245877 C 20060322 CN 2002-803928
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ES 2296903 T3 20080501 ES 2002-709996
20020107 <--
EG 23181 A 20040630 EG 2002-47
20020115 <--
TW 244892 B 20051211 TW 2002-91100634
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KR 857843 B1 20080910 KR 2003-708774
20030627 <--
ZA 2003005484 A 20040906 ZA 2003-5484
20030716 <--
MX 2003006481 A 20041015 MX 2003-6481
20030718 <--
US 20040063703 A1 20040401 US 2003-250877
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AU 2007203226 A1 20070802 AU 2007-203226
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PRIORITY APPLN. INFO.: DE 2001-10102544 A
20010119 <--
DE 2001-10134720 A
20010717 <--
AU 2002-228035 A3
20020107 <--
CN 2002-803928 A3
20020107 <--
WO 2002-EP59 W
20020107 <--
IC ICM A01N047-38
ICS A01N047-38; A01N051-00; A01N047-42
CC 5-4 (Agrochemical Bioregulators)
ST synergism insecticide mixt sodium channel blocker
IT Sodium channel blockers
(mixts. containing; synergistic insecticidal compns.)
IT Insecticides
(synergistic; mixts. containing sodium channel blockers)
IT 111988-49-9 138261-41-3, 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-
imidazolidinimine 210880-92-5
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(mixts. with sodium channel blockers; synergistic insecticidal compns.)
IT 443096-57-9, Indoxacarb-imidacloprid mixture 443096-58-0,

Indoxacarb-clothianidin mixture 443096-60-4, Indoxacarb-thiacloprid mixture
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(synergistic insecticidal composition)
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
TI Synergistic insecticidal and acaricidal compns. containing neem extract
AB The title compns. comprise neem seed extract and any of 35 known insecticides and acaricides.
ACCESSION NUMBER: 2002:428627 CAPLUS Full-text
DOCUMENT NUMBER: 137:1951
TITLE: Synergistic insecticidal and acaricidal compns. containing neem extract
INVENTOR(S): Baron, Gerhard; Kilian, Michael; Rosenfeldt, Frank
PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002043496	A2	20020606	WO 2001-EP13340	20011119 <--
WO 2002043496	A3	20020829		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10059606	A1	20020606	DE 2000-10059606	20001201 <--
AU 2002018304	A	20020611	AU 2002-18304	20011119 <--
EP 1339288	A2	20030903	EP 2001-998148	20011119 <--

EP 1339288 B1 20070418
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
AT 359709 T 20070515 AT 2001-998148 20011119 <--
ES 2284731 T3 20071116 ES 2001-998148 20011119 <--
US 20040052878 A1 20040318 US 2003-432979 20031003 <--
PRIORITY APPLN. INFO.: DE 2000-10059606 A 20001201 <--

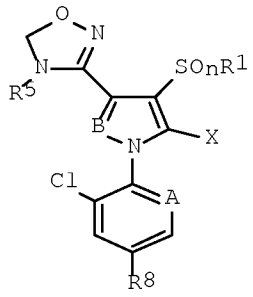
L21 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
TI Synergistic pesticides in rice paddies
AB A synergistic pesticide contains an insecticide like clothianidin, a microbicide like isoprothiolane, and a herbicide. A number of Markush structures of pesticides are claimed.
ACCESSION NUMBER: 2002:384278 CAPLUS Full-text
DOCUMENT NUMBER: 136:381758
TITLE: Synergistic pesticides in rice paddies
INVENTOR(S): Akayama, Atsuo; Yamawaki, Takahiro
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002145709	A	20020522	JP 2001-259699	20010829 <--

PRIORITY APPLN. INFO.: JP 2000-260812 A 20000830 <--
OTHER SOURCE(S): MARPAT 136:381758
IC ICM A01N047-38
ICS A01N037-22; A01N037-24; A01N041-04; A01N043-10; A01N043-76; A01N043-78; A01N043-86; A01N047-12; A01N047-36; A01N051-00
CC 5-3 (Agrochemical Bioregulators)
ST synergism insecticide microbicide herbicide rice
IT Fungicides
Herbicides
Insecticides
Molluscicides
(in synergistic pesticides for rice paddies)
IT Pyricularia oryzae
(synergistic pesticides for rice paddies for control of)
IT 15263-52-2, Cartap hydrochloride 50512-35-1, Isoprothiolane 122548-33-8, Imazosulfuron 125306-83-4, Cafenstrole 210880-92-5, Clothianidin
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(in synergistic pesticides for rice paddies)

IT 108-62-3, Metaldehyde 27605-76-1 41814-78-2 51218-49-6, Pretilachlor
57369-32-1 73250-68-7, Mefenacet 79540-50-4, Etobenzanid 85785-20-2,
Esprocarb 88678-67-5, Pyributicarb 104030-54-8 110956-75-7,
Pentoxazone 115852-48-7 135158-54-2 152542-38-6 153197-14-9,
Oxaziclomefone 158237-07-1, Fentrazamide
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL
(Biological study); USES (Uses)
(in synergistic pesticides in rice paddies)
IT 427893-57-0
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL
(Biological study); USES (Uses)
(synergistic pesticides for rice paddies)
IT 220305-15-7 427893-58-1 427893-59-2 427893-60-5 427893-61-6
427893-62-7 427893-63-8 427893-64-9 427893-65-0
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL
(Biological study); USES (Uses)
(synergistic pesticides in rice paddies)

L21 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
TI Synergistic insecticidal compositions containing oxadiazoline derivatives, insect control, and enhancement of insecticidal action of the
derivatives
GI



I

AB Insecticidal compns. contain the derivs. I [R1 = C1-6 alkyl, C1-6 haloalkyl; n = 0, 1, 2; X = NR2R3 (R2, R3 = H, C1-6 alkyl which may be substituted with pyridyl), N:CHOR4 (R4 = C1-6 alkyl), N:CHNR6R7 (R6, R7 = H, C1-6 alkyl), N:CHAr (Ar = Ph which may be substituted with OH or C1-3 alkoxy), pyrrolyl; R5 = (un)substituted alkyl, (un)substituted acyl; R8 = halo, C1-6 haloalkyl, C1-6 haloalkoxy, Ph which may be substituted with C1-6

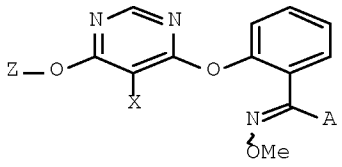
haloalkyl; A = N, CR9 (R9 = Cl, cyano); B = N, CH] or their salts and other agrochem. components such as insecticidal clothianidin, nitenpyram, cartap hydrochloride, bensultap, pyraclofos, etc. Insects are controlled by combined use of I or their salts with the other agrochem. components. Insecticidal activity of I or their salts is enhanced by combined use with the other agrochem. components. I (n =1, R1 = R8 = CF3, R5 = CONMe2, A = CCl, B = N, X = N:CHOCHMe2) (preparation given) and clothianidin showed synergistic action against Plutella maculipennis larvae in pot culture of cabbage. Agrochem. formulations containing I were also given.

ACCESSION NUMBER: 2001:423412 CAPLUS Full-text
DOCUMENT NUMBER: 135:30294
TITLE: Synergistic insecticidal compositions containing oxadiazoline derivatives, insect control, and enhancement of insecticidal action of the derivatives
INVENTOR(S): Akayama, Atsuo
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 67 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001158785	A	20010612	JP 1999-340604	19991130 <--

PRIORITY APPLN. INFO.: JP 1999-340604 19991130 <--
OTHER SOURCE(S): MARPAT 135:30294
IC ICM C07D413-04
ICS A01N043-836; C07D413-14
CC 5-4 (Agrochemical Bioregulators)
Section cross-reference(s): 28
ST oxadiazoline deriv synergistic insecticide; clothianidin oxadiazoline deriv synergistic insecticide
IT Fungicides
(agrochem.; preparation of insecticidal oxadiazoline derivs. and synergistic agrochem. insecticides containing them)
IT Insecticides
(preparation of insecticidal oxadiazoline derivs. and synergistic agrochem. insecticides containing them)
IT Insecticides
(synergistic; preparation of insecticidal oxadiazoline derivs. and synergistic agrochem. insecticides containing them)

L21 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2009 ACS on STN
TI Synergistic fungicidal compositions.
GI



I

AB The title compns. comprise the pyrimidine derivs. I [Z = (un)substituted Ph; X = halo; A = heterocyclyl, CO2Me or CHNHMe] and any of a large number of known fungicides.

ACCESSION NUMBER: 2000:349202 CAPLUS Full-text
DOCUMENT NUMBER: 132:344443
TITLE: Synergistic fungicidal compositions.
INVENTOR(S): Mauler-Machnik, Astrid; Wachendorf-Neumann, Ulrike;
Gayer, Herbert
PATENT ASSIGNEE(S): Bayer A.-G., Germany
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19939841	A1	20000525	DE 1999-19939841	19990823 <--
IN 1999BO00745	A	20050304	IN 1999-BO745	19991102 <--
CA 2351500	A1	20000602	CA 1999-2351500	19991108 <--
WO 2000030440	A2	20000602	WO 1999-EP8558	19991108 <--
WO 2000030440	A3	20000831		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,

CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
AU 2000010460 A 20000613 AU 2000-10460
19991108 <--
AU 752441 B2 20020919
BR 9915518 A 20010717 BR 1999-15518
19991108 <--
EP 1130963 A2 20010912 EP 1999-953975
19991108 <--
EP 1130963 B1 20050302
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO
TR 200101379 T2 20011121 TR 2001-1379
19991108 <--
HU 2001004483 A2 20020328 HU 2001-4483
19991108 <--
HU 2001004483 A3 20020429
TR 200103810 T2 20020621 TR 2001-3810
19991108 <--
TR 200103811 T2 20020621 TR 2001-3811
19991108 <--
JP 2002530297 T 20020917 JP 2000-583338
19991108 <--
CN 1157118 C 20040714 CN 1999-813518
19991108 <--
EP 1506711 A2 20050216 EP 2004-24463
19991108 <--
EP 1506711 A3 20050427
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, FI, CY
AT 289750 T 20050315 AT 1999-953975
19991108 <--
PT 1130963 T 20050630 PT 1999-953975
19991108 <--
ES 2238853 T3 20050901 ES 1999-953975
19991108 <--
TW 521994 B 20030301 TW 1999-88119807
19991115 <--
US 6559136 B1 20030506 US 2001-856023
20010516 <--
MX 2001005029 A 20000827 MX 2001-5029
20010518 <--
US 20030161896 A1 20030828 US 2003-371770
20030221 <--
PRIORITY APPLN. INFO.: DE 1998-19853559 A1
19981120 <--
DE 1999-19939841 A
19990823 <--
EP 1999-953975 A3
19991108 <--
WO 1999-EP8558 W
19991108 <--
US 2001-856023 A3
20010516 <--
OTHER SOURCE(S): MARPAT 132:344443
IC ICM A01N043-54

CC 5-2 (Agrochemical Bioregulators)
ST pyrimidine deriv fungicide synergism
IT Fungicides
(synergistic; compns. containing pyrimidine derivs.)

=> s l19 and acetylcholin?
613 L19
99752 ACETYLCHOLIN?
L22 41 L19 AND ACETYLCHOLIN?

=> s l22 and (agonist? or antagonist?)
174079 AGONIST?
273680 ANTAGONIST?
L23 31 L22 AND (AGONIST? OR ANTAGONIST?)

=> s l23 and (py<2003 or ay<2003 or pry<2003)
22983883 PY<2003
4506011 AY<2003
3975367 PRY<2003
L24 5 L23 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> d l24 ibib abs ti hitind

L24 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:175092 CAPLUS Full-text
DOCUMENT NUMBER: 138:349994
TITLE: Clothianidin: a novel broad-spectrum neonicotinoid insecticide
AUTHOR(S): Ohkawara, Y.; Akayama, A.; Matsuda, K.; Andersch, W.
CORPORATE SOURCE: Takeda Chemical Industries, Ltd., Tsukuba, Ibaraki, 300-4293, Japan
SOURCE: BCPC Conference--Pests & Diseases (2002), (Vol. 1), 51-58
CODEN: BCDCAE
PUBLISHER: British Crop Protection Council
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Clothianidin (TI-435) is a novel neonicotinoid insecticide, acting as an agonist of nicotinic acetylcholine receptor (nAChR). This compound has minimal adverse effects against vertebrates. The potent agonistic action of clothianidin was observed only on insect nAChR, but not on vertebrate ones, indicating that the compound has selective toxicity for insects over vertebrates. Laboratory studies have demonstrated that clothianidin is highly active against not only hemipterous insects but also coleopterous, thysanopterous, dipterous and some lepidopterous pests. Since this compound possesses excellent root systemic properties, it can be used by various application methods. In field trials, clothianidin exhibited excellent control of insect pests by foliar application, paddy water application, soil application and seed treatment. Because of its broad spectrum of insecticidal activity, good systemic properties and low mammalian toxicity, clothianidin is a compound that is considered to be compatible with integrated pest management strategies.

TI Clothianidin: a novel broad-spectrum neonicotinoid insecticide
CC 5-4 (Agrochemical Bioregulators)
IT 210880-92-5, Clothianidin:
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(clothianidin as broad-spectrum neonicotinoid insecticide)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d l24 ibib abs ti hitind 2-5

L24 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:586328 CAPLUS Full-text
DOCUMENT NUMBER: 138:132444
TITLE: Evaluation of affinity of neonicotinoid insecticides
for rat brain nicotinic acetylcholine
receptors by [3H] epibatidine-binding assay
AUTHOR(S): Okumoto, Takashi; Ozoe, Yoshihisa
CORPORATE SOURCE: Department of Life Science and Biotechnology, Faculty
of Life and Environmental Science, Shimane University,
Matsue, Shimane, 690-8504, Japan
SOURCE: Nippon Noyaku Gakkaishi (2002), 27(2), 145-146
CODEN: NNGADV; ISSN: 0385-1559
PUBLISHER: Nippon Noyaku Gakkai
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The affinity of neonicotinoids for rat brain nAChRs was evaluated under the optimized (3H)EPI-binding conditions. Imidacloprid, acetamiprid, and clothianidin exhibited higher activity than did the other compds.; these three compds. at 10 μM inhibited specific (3H)EPI binding by 60.6, 56.3, and 33.6%. resp. The other compds., including the enantiomers of dinotefuran, had little inhibitory activity at 10 μM, indicating almost no significant interaction with α4β2-nAChRs in rat brain. Given that the IC50 values of imidacloprid and acetamiprid are approx. 10 μM, the Ki values, calculated according to the Cheng-Prusoff equation, was .apprx.5 μM. Electrophysiol., imidacloprid was reported to be a partial agonist with an ECs, of >79 μM in chicken α4β2-nAChRs expressed in Xenopus oocytes. The rank order in terms of activity in vitro of the tested compds. appears to be in general agreement with that of their acute oral toxicity in rats, as well as that of their potency measured based on (3H)nicotine binding to rat recombinant α4β2-nAChRs. Considering the range of nanomolar activity of these compds. in (3H) EPI assays using a cockroach nerve preparation, the data presented here indicate that all tested compds. are highly selective for cockroach nAChRs vs. rat α4β2-nAChRs.
TI Evaluation of affinity of neonicotinoid insecticides for rat brain nicotinic acetylcholine receptors by [3H] epibatidine-binding

assay
CC 4-4 (Toxicology)
Section cross-reference(s): 5
IT Brain
(evaluation of affinity of neonicotinoid insecticides for rat brain
nicotinic acetylcholine receptors by epibatidine-binding assay)
IT Nicotinic receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(evaluation of affinity of neonicotinoid insecticides for rat brain
nicotinic acetylcholine receptors by epibatidine-binding assay)
IT Insecticides
(neonicotinoid; evaluation of affinity of neonicotinoid insecticides
for rat brain nicotinic acetylcholine receptors by epibatidine-binding assay)
IT 135410-20-7, Acetamiprid 138261-41-3, Imidacloprid 150824-47-8,
Nitenpyram 153719-23-4, Thiamethoxam 165252-70-0, Dinotefuran
210880-92-5, Clothianidin 322639-07-6, (S)-Dinotefuran
406466-53-3
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(evaluation of affinity of neonicotinoid insecticides for rat brain
nicotinic acetylcholine receptors by epibatidine-binding assay)
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:108925 CAPLUS Full-text
DOCUMENT NUMBER: 136:274771
TITLE: Interaction of dinotefuran and its analogues with
nicotinic acetylcholine receptors of cockroach nerve cords
AUTHOR(S): Mori, Kazuki; Okumoto, Takashi; Kawahara, Nobuyuki;
Ozoe, Yoshihisa
CORPORATE SOURCE: Department of Life Science and Biotechnology, Shimane
University, Shimane, 690-8504, Japan
SOURCE: Pest Management Science (2002), 58(2), 190-196
CODEN: PMSCFC; ISSN: 1526-498X
PUBLISHER: John Wiley & Sons Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To investigate the action of dinotefuran (MTI-446, 1-methyl-2-nitro-3-(tetrahydro-3-furylmethyl)guanidine), a recently developed insecticide, on insect nicotinic acetylcholine receptors (nAChRs),

we determined the potencies of the compound and 22 analogs in inhibiting the specific binding of [3H]epibatidine (EPI), a nAChR agonist, and [3H]α-bungarotoxin (α-BGT), a comparative nAChR antagonist, to the nerve cord membranes of American cockroaches (Periplaneta americana). Racemic dinotefuran inhibited [3H]EPI binding with an IC50 of 890 nM and [3H]α-BGT binding with an IC50 of 36.1 μM. Scatchard anal. indicated that the dinotefuran inhibition of [3H]EPI binding was a competitive one. Slight structural modification caused a drastic reduction in potency; only four analogs were found to be equipotent to or more potent than dinotefuran. Chloropyridinyl and chlorothiazolyl neonicotinoid insecticides displayed two or three orders of magnitude higher potency than dinotefuran. There was a good correlation between the IC50 values of tested compds. obtained with [3H]EPI and those obtained with [3H]α-BGT. A better correlation was observed between 3-h knockdown activities (KD50) against German cockroaches (Blattella germanica) and IC50 values obtained from [3H]EPI assays than between 24-h lethal activities (LD50) and IC50 values. While the results indicate that dinotefuran and its analogs interact with the ACh-binding site in cockroach nAChRs, it remains to be elucidated why they displayed lower potencies than those expected based on their insecticidal activities.

TI Interaction of dinotefuran and its analogues with nicotinic acetylcholine receptors of cockroach nerve cords

CC 5-4 (Agrochemical Bioregulators)

ST dinotefuran insecticide nicotinic acetylcholine receptor cockroach; neonicotinoid insecticide Periplaneta nerve cord

IT Structure-activity relationship
(insecticidal; interaction of dinotefuran and its analogs with nicotinic acetylcholine receptors of cockroach nerve cords)

IT Periplaneta americana
(interaction of dinotefuran and its analogs with nicotinic acetylcholine receptors of cockroach nerve cords)

IT Nicotinic receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(interaction of dinotefuran and its analogs with nicotinic acetylcholine receptors of cockroach nerve cords)

IT Insecticides
(neonicotinoid; interaction of dinotefuran and its analogs with nicotinic acetylcholine receptors of cockroach nerve cords)

IT Nervous system
(nerve cord; interaction of dinotefuran and its analogs with nicotinic acetylcholine receptors of cockroach nerve cords)

IT Structure-activity relationship
(nicotinic receptor-binding; interaction of dinotefuran and its analogs with nicotinic acetylcholine receptors of cockroach nerve cords)

IT 165252-51-7 165252-70-0, Dinotefuran 165252-73-3 165252-87-9 165253-05-4 165253-10-1 168688-99-1 174458-00-5 174458-03-8 182426-48-8 183050-37-5 185043-87-2 201141-17-5 322639-07-6 406466-23-7 406466-24-8 406466-26-0 406466-28-2 406466-31-

7
406466-37-3 406466-40-8 406466-44-2 406466-50-0 406466-53-3
RL: BSU (Biological study, unclassified); BIOL (Biological study) (interaction with nicotinic acetylcholine receptors of cockroach nerve cords)
IT 135410-20-7, Acetamiprid 138261-41-3, Imidacloprid 150824-47-8,
Nitenpyram 153719-23-4, Thiamethoxam 210880-92-5, Clothianidin
RL: BSU (Biological study, unclassified); BIOL (Biological study) (interaction with nicotinic acetylcholine receptors of cockroach nerve cords as compared ro dinotefuran and its analogs)
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1999:549118 CAPLUS Full-text
DOCUMENT NUMBER: 131:181124
TITLE: Aqueous formulations for combating parasitic insects
and acarina on humans
INVENTOR(S): Sirinyan, Kirkor; Horn, Karin; Stocker, Ronald Helmut;
Sonneck, Rainer
PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9941987	A1	19990826	WO 1999-EP878	19990210 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 19807630	A1	19990826	DE 1998-19807630	19980223 <--
CA 2321206	A1	19990826	CA 1999-2321206	

19990210 <--
AU 9925230 A 19990906 AU 1999-25230
19990210 <--
AU 739980 B2 20011025
BR 9908197 A 20001024 BR 1999-8197
19990210 <--
TR 200002441 T2 20001121 TR 2000-2441
19990210 <--
EP 1056342 A1 20001206 EP 1999-904877
19990210 <--
EP 1056342 B1 20030820
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, FI
HU 2001000959 A2 20010828 HU 2001-959
19990210 <--
JP 2002503682 T 20020205 JP 2000-532014
19990210 <--
AT 247384 T 20030915 AT 1999-904877
19990210 <--
PT 1056342 T 20031231 PT 1999-904877
19990210 <--
ES 2205770 T3 20040501 ES 1999-904877
19990210 <--
CN 1294812 C 20070117 CN 1999-803231
19990210 <--
ZA 9901384 A 19990823 ZA 1999-1384
19990222 <--
IN 2000MN00226 A 20050715 IN 2000-MN226
20000727 <--
US 6369054 B1 20020409 US 2000-601572
20000803 <--
MX 2000008052 A 20010405 MX 2000-8052
20000817 <--
HK 1035993 A1 20070914 HK 2001-107011
20011005 <--
PRIORITY APPLN. INFO.: DE 1998-19807630 A
19980223 <--
WO 1999-EP878 W
19990210 <--
OTHER SOURCE(S): MARPAT 131:181124
AB The invention relates to aqueous formulations for combating parasitic insects and acarina on the skin of human beings, having the following composition: agonists or antagonists of nicotinic acetylcholine receptors of insects, such as imidacloprid, at 0.0001-7.5 weight %; water, at 20-50 weight %; acyclic alcs., at 20-50 weight %; solvents from the group of cyclic carbonates or lactones,.5-20.0 weight %; and, optionally, other adjuvants from the group of thickening agents, antioxidants, expanding agents, preserving agents, deposit builders and emulsifiers, at ≥30 weight %.
TI Aqueous formulations for combating parasitic insects and acarina on humans
IC ICM A01N051-00
ICS A01N061-00; A01N051-00; A01N043-08; A01N031-02; A01N025-02; A01N061-00; A01N043-08; A01N031-02; A01N025-02
CC 5-4 (Agrochemical Bioregulators)

IT Nicotinic agonists
Nicotinic antagonists
Pesticide formulations
(aqueous ectoparasiticidal formulation for humans)
IT 58842-20-9 101336-63-4 101336-64-5 105827-70-1 105828-97-5
105843-35-4 105843-36-5 111988-43-3 111988-49-9 111988-51-
3
120738-88-7 120738-89-8 131748-47-5 131748-49-7 131748-54-
4
131748-55-5 131768-12-2 135410-20-7 135410-92-3 136516-18-
2
136516-19-3, AKD 1022 138261-41-3, Imidacloprid 138681-61-5
153719-22-3 153719-23-4 165252-70-0 165253-13-4 171103-03-
0
171103-04-1 172333-79-8 172333-80-1 172333-81-2 185043-87-
2
210880-92-5, Ti 435
RL: BUU (Biological use, unclassified); THU (Therapeutic use);
BIOL
(Biological study); USES (Uses)
(aqueous ectoparasiticidal formulation for humans)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE
FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L24 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1999:549117 CAPLUS Full-text
DOCUMENT NUMBER: 131:166526
TITLE: Aqueous formulations of animal
ectoparasiticides
INVENTOR(S): Sirinyan, Kirkor; Dorn, Hubert; Heukamp,
Ulrich
PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9941986	A1	19990826	WO 1999-EP875	19990210 <--

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CZ, DE,
DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN,
IS, JP,
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG,
MK, MN,
MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,
TJ, TM,
TR, TT, UA, UG, US, UZ, VN, YU, ZW
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE,
DK, ES,

FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

DE 19807633 A1 19990826 DE 1998-19807633 19980223 <--

CA 2321209 A1 19990826 CA 1999-2321209 19990210 <--

AU 9926230 A 19990906 AU 1999-26230 19990210 <--

AU 750954 B2 20020801

BR 9908173 A 20001031 BR 1999-8173 19990210 <--

EP 1056343 A1 20001206 EP 1999-906223 19990210 <--

EP 1056343 B1 20041013

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, SI, LT, LV, FI, RO

TR 200002443 T2 20001221 TR 2000-2443 19990210 <--

HU 2001000790 A2 20010828 HU 2001-790 19990210 <--

JP 2002503681 T 20020205 JP 2000-532013 19990210 <--

EE 200000485 A 20020215 EE 2000-485 19990210 <--

NZ 506460 A 20030131 NZ 1999-506460 19990210 <--

TW 581660 B 20040401 TW 1999-88102018 19990210 <--

RU 2232505 C2 20040720 RU 2000-124395 19990210 <--

AT 279114 T 20041015 AT 1999-906223 19990210 <--

PT 1056343 T 20050131 PT 1999-906223 19990210 <--

ES 2230835 T3 20050501 ES 1999-906223 19990210 <--

IL 137618 A 20060820 IL 1999-137618 19990210 <--

CN 1328958 C 20070801 CN 1999-805324 19990210 <--

ZA 9901385 A 19990823 ZA 1999-1385 19990222 <--

BG 104690 A 20011031 BG 2000-104690 20000815 <--

BG 64814 B1 20060531

MX 2000008051 A 20010405 MX 2000-8051 20000817 <--

NO 2000004188 A 20001023 NO 2000-4188 20000822 <--

NO 324076 B1 20070806

HK 1037479 A1 20080523 HK 2001-108376 20011128 <--

US 20030162773 A1 20030828 US 2003-347003 20030117 <--

US 7384938 B2 20080610

PRIORITY APPLN. INFO.: DE 1998-19807633 A
19980223 <--
WO 1999-EP875 W
19990210 <--
US 2000-622660 B1
20000821 <--
OTHER SOURCE(S): MARPAT 131:166526
AB The invention relates to aqueous formulations for combating parasitic insects and acarina on the skin of animals, having the following composition: (a) agonists or antagonists of nicotinic acetylcholine receptors of insects, at 1-20 weight %; (b) water, at 2.5-15 weight %; (c) solvents from the group of alcs., such as benzyl alc., tetrahydrofurfuryl alc. or optionally-substituted pyrrolidone, at ≥20 weight %; (d) solvents from the group of the cyclic carbonates or lactones. at 5-50.0 weight %; (e) optionally, other adjuvants from the group of the thickening agents, spreading agents, colorants, antioxidants, expanding agents, preserving agents, deposit builders and emulsifiers, at 0.025-10 weight %.
TI Aqueous formulations of animal ectoparasiticides
IC ICM A01N051-00
ICS A01N061-00; A01N051-00; A01N043-36; A01N043-08; A01N031-04; A01N025-02; A01N061-00; A01N043-36; A01N043-08; A01N031-04; A01N025-02
CC 5-4 (Agrochemical Bioregulators)
Section cross-reference(s): 2
IT Nicotinic agonists
Nicotinic antagonists
(in aqueous formulations of animal ectoparasiticides)
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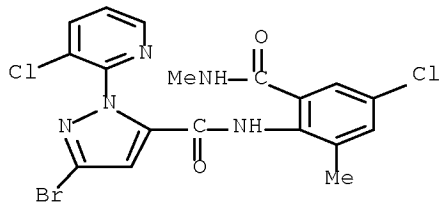


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L3   ANSWER 1 OF 5  CAPLUS  COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:        2004:270097  CAPLUS  Full-text
DOCUMENT NUMBER:         140:282468
TITLE:                   Cloning and characterization of insect
ryanodine
                         receptors and their use for screening for
insecticidal
                         compounds
INVENTOR(S):             Caspar, Timothy; Cordova, Daniel; Gutteridge,
Steven;
                         Rauh, James J.; Smith, Rejane M.; Wu, Lihong;
Tao,
                         Yong
PATENT ASSIGNEE(S):      E. I. Du Pont de Nemours and Company, USA
SOURCE:                  PCT Int. Appl., 731 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

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PRIORITY APPLN. INFO.:			US 2002-412795P	P 20020923 <--
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AB The genes encoding ryanodine receptor homologs are provided from multiple insect families including lepidopteran tobacco budworm (Heliothis virescens), homopteran green peach aphid (Myzus persicae), corn plant hopper (Peregrinus maidis), cotton melon aphid (Aphis gossypii), and fruitfly (Drosophila melanogaster). The full-length genes were isolated, cloned, and amplified in bacterial cells. Expression in insect cells shows that the recombinant protein folds into a functional calcium release channel. The genes and their corresponding polypeptides have a number of uses including, but not limited to, the isolation of other pest ryanodine receptors, the development of screens to identify insecticidally active compds., use of fragments of genes as pesticides, fragments of protein for antibody production, fragments of protein for determination of the structure of insecticide binding sites, and identification of insecticides that disrupt the calcium balance in cells through other messengers that interact with the receptor calcium release mechanism. Methods are outlined for overcoming toxic effects of expressing recombinant proteins in host cells.

TI Cloning and characterization of insect ryanodine receptors and their use
for screening for insecticidal compounds

IC ICM C12N

CC 3-3 (Biochemical Genetics)
Section cross-reference(s): 5, 6, 12

IT 58-08-2, Caffeine, biological studies 11103-72-3, Ruthenium red 15662-33-6, Ryanodine 23214-92-8, Doxorubicin 101927-49-5 362637-84-1 362637-97-6 362639-17-6 362639-45-0 362639-48-3 362639-62-1 362639-69-8 438450-41-0 500005-94-7 500006-21-3 500007-97-6 500008-00-4 500008-14-0 500008-29-7 500008-36-6 500008-44-6 500008-45-7 500008-60-6 500008-62-8 675826-03-6 675826-04-7
RL: AGR (Agricultural use); BIOL (Biological study); USES (Uses)
(cloning and characterization of insect ryanodine receptors and their use for screening for insecticidal compds.)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:101149 CAPLUS Full-text
DOCUMENT NUMBER: 140:146150
TITLE: Method for preparing fused oxazinones by cyclocondensation of ortho-amino aromatic carboxylic acids with carboxylic acids
INVENTOR(S): Taylor, Eric Deguyon
PATENT ASSIGNEE(S): E.I. Du Pont de Nemours and Company, USA
SOURCE: PCT Int. Appl., 80 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004011447	A2	20040205	WO 2003-US23821	20030729 <--
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AT 371657 T 20070915 AT 2003-772097
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ES 2293040 T3 20080316 ES 2003-772097
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US 2003-446438P P
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WO 2003-US23821 W
20030729
OTHER SOURCE(S): MARPAT 140:146150
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A method for preparing a fused oxazinone [I; J = an optionally substituted carbon moiety; K together with the two contiguous liking carbon atoms = each (un)substituted a fused Ph ring or a fused 5- or 6-membered heteroarom. ring] is disclosed in which (1) a carboxylic acid of formula J-CO2H is contacted with a sulfonyl chloride of formula LS(O)2Cl [L= each (un)substituted alkyl, haloalkyl, or Ph] in the presence of an optionally substituted pyridine compound, the nominal mole ratio of sulfonyl chloride to carboxylic acid being from about 0.75 to 1.5; (2) the mixture prepared in (1) is contacted with an ortho-amino aromatic carboxylic acid in the presence of an optionally substituted pyridine compound, the nominal mole ratio of the ortho-amino aromatic carboxylic acid to carboxylic acid (II; K = same as above) charged in (1) being from about 0.8 to 1.2; and (3) addnl. sulfonyl chloride is added to the mixture prepared in (2), the nominal mole ratio of addnl. sulfonyl chloride added in (3) to carboxylic acid charged in (1) being at least about 0.5. More specifically disclosed is a method for preparing a compound of formula (III) [X = N, CR6; Y = N, CH; R1 = H, R2 = H, Me; R3 = C1-6 alkyl; R4 = C1-4 alkyl,halo; R5 = H, C1-4 alkyl, C1-4 haloalkyl, halo; R6, R7 = H, C1-4 alkyl, C1-4 haloalkyl, halo, cyano, C1-4 haloalkyl; R8 = H, C1-4 alkyl, C2-4 alkenyl, C2-4 alkynyl, C3-6 cycloalkyl, C1-4 haloalkyl, C2-4 haloalkenyl, C2-4 haloalkynyl, C3-6 halocycloalkyl, halogen, cyano, NO2, C1-4 alkoxy, C1-4 haloalkoxy, C1-4 alkylthio, C1-4 alkylsulfinyl, C1-4 alkylsulfonyl, C1-4 alkylamino, C2-8 dialkylamino, C3-6 cycloalkylamino, (C1-4 alkyl)(C3-6 cycloalkyl)amino, etc.; R9 = CF3, OCF3, OCHF2, OCH2CF3, S(O)pCF3, S(O)pCHF2, halo; p = 0-2] using a compound of formula (IV; R1 -R5 = same as above; R7-R9 = same as above; X, Y = same as above) that is characterized by preparing the fused oxazinone IV by the method above, using a

compound of the formula LS(O)2Cl as the sulfonyl chloride, a compound of formula (V) (R7-R9 = same as above) as the carboxylic acid, and a compound of formula (VI) (R4, R5 = same as above) as the ortho-amino aromatic carboxylic acid.

L3 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:242097 CAPLUS Full-text
DOCUMENT NUMBER: 138:267201
TITLE: Pesticidal compositions for coating plant propagation material containing anthranilamides
INVENTOR(S): Berger, Richard Alan; Flexner, John Lindsey
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: PCT Int. Appl., 147 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003024222	A1	20030327	WO 2002-US30302	20020910 <--
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US 20040209923	A1	20041021	US 2004-485125	20040126 <--
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OTHER SOURCE(S): MARPAT 138:267201

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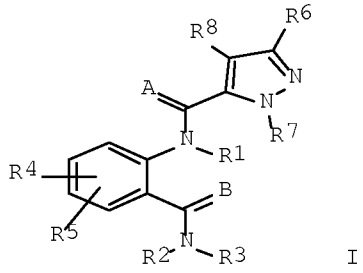

I

AB An invertebrate pest control composition for coating a propagule comprises (1) a biol. effective amount of an anthranilamide compds. I (Markush included), an N-oxide thereof or an

agriculturally suitable salt thereof, and (2) a film former or adhesive agent. Arthropodicidal composition containing anthranilamide compds. I may further comprise addnl. biol. active compds. selected from arthropodicides of the group consisting of pyrethroids, carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones, γ-aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics, and fungicides. The propagule is a seed of cotton, maize, soybean, rice, etc., or a rhizome, tuber, bulb or corm, or viable division thereof, of potato, sweet potato, garden onion, tulip, daffodil, crocus hyacinth, etc., or is a stem or leaf cutting.

L3 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:154155 CAPLUS Full-text
DOCUMENT NUMBER: 138:200332
TITLE: Arthropodicidal anthranilamides
INVENTOR(S): Lahm, George Philip; Selby, Thomas Paul; Stevenson, Thomas Martin
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: PCT Int. Appl., 82 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

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WO 2003015519	A1	20030227	WO 2002-US25615	20020813 <--
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OTHER SOURCE(S): MARPAT 138:200332

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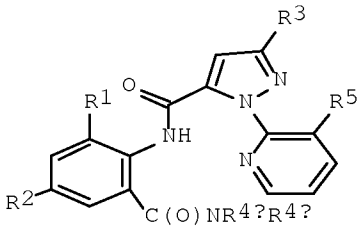

I

AB Anthranilamides I (Markush included), their N-oxides and agriculturally suitable salts are prepared as arthropodicides for controlling invertebrate pests. Arthropodicidal compns. containing anthranilamides I may further include addnl. biol. active compds. or agents selected from arthropodicides of the group consisting of pyrethroids, carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones, γ-aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics, Bacillus thuringiensis sp. aizawai, B. thuringiensis sp. kurstaki, B. thuringiensis delta endotoxin, baculoviruses, and entomopathogenic bacteria, viruses and fungi

L3 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	2003:154154 CAPLUS Full-text
DOCUMENT NUMBER:	138:200331
TITLE:	Method for controlling particular insect pests by applying anthranilamide compounds
INVENTOR(S):	Lahm, George Philip; McCann, Stephen Frederick; Patel, Kanu Maganbhai; Selby, Thomas Paul; Stevenson, Thomas Martin
PATENT ASSIGNEE(S):	E. I. Du Pont de Nemours & Co., USA
SOURCE:	PCT Int. Appl., 150 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	4
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003015518	A1	20030227	WO 2002-US25613	20020813 <--
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OTHER SOURCE(S): MARPAT 138:200331

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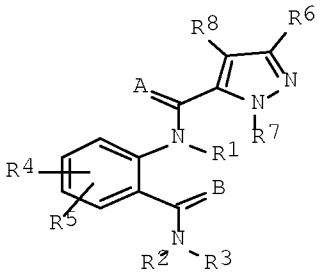

I

AB Anthranilamide compds. I (Markush included), N-oxides or an agriculturally suitable salts thereof are prepared as insecticides for controlling lepidopteran, homopteran, hemipteran, thysanopteran and coleopteran insect pests. Insecticidal composition containing anthranilamide compds. I may further comprise addnl. biol. active compds. selected from arthropodicides of the group consisting of pyrethroids, carbamates, neonicotinoids, neuronal sodium channel blockers, insecticidal macrocyclic lactones, γ-aminobutyric acid (GABA) antagonists, insecticidal ureas, and juvenile hormone mimics.

http://www.cas.org/support/stngen/stndoc/properties.html

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L4           1 210880-92-5/RN

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L4   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2009 ACS on STN
RN   210880-92-5  REGISTRY
ED   Entered STN:  06 Sep 1998
CN   Guanidine, N-[(2-chloro-5-thiazolyl)methyl]-N'-methyl-N''-nitro-,
[C(E)]-
     (CA INDEX NAME)
OTHER NAMES:
CN   Apacz
CN   Arena
CN   Belay
CN   Celero
CN   Clothianidin
CN   Clutch
CN   Clutch (insecticide)
CN   Dantotsu
CN   Fullswing
CN   Poncho
CN   Takeloc CLMN 10
CN   Takeloc MC 50E
CN   TI 435
CN   TM 44401
CN   V 10170
FS   STEREOSEARCH
DR   205510-53-8
MF   C6 H8 Cl N5 O2 S
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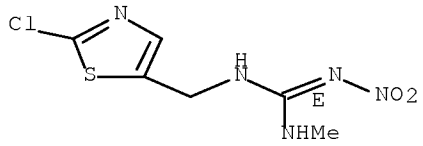
CI COM
SR CA
LC STN Files: ANABSTR, BIOSIS, CA, CAPLUS, CASREACT, CBNB, CHEMCATS,
CHEMLIST, CSCHEM, HSDB*, MRCK*, PATDPASPC, RTECS*, TOXCENTER, ULIDAT,
USPAT2, USPATFULL
(*File contains numerically searchable property data)

Double bond geometry as shown.



http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L8   ANSWER 13 OF 18  CAPLUS  COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:        2002:384278  CAPLUS  Full-text
DOCUMENT NUMBER:         136:381758
TITLE:                   Synergistic pesticides in rice paddies
INVENTOR(S):             Akayama, Atsuo; Yamawaki, Takahiro
PATENT ASSIGNEE(S):      Takeda Chemical Industries, Ltd., Japan
SOURCE:                  Jpn. Kokai Tokkyo Koho, 12 pp.
                         CODEN: JKXXAF
DOCUMENT TYPE:           Patent
LANGUAGE:                Japanese
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FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002145709	A	20020522	JP 2001-259699	20010829 <--
PRIORITY APPLN. INFO.:			JP 2000-260812	A 20000830 <--
OTHER SOURCE(S):	MARPAT 136:381758			

AB A synergistic pesticide contains an insecticide like clothianidin, a microbicide like isoprothiolane, and a herbicide. A number of Markush structures of pesticides are claimed.
TI Synergistic pesticides in rice paddies
IC ICM A01N047-38
ICS A01N037-22; A01N037-24; A01N041-04; A01N043-10; A01N043-76; A01N043-78; A01N043-86; A01N047-12; A01N047-36; A01N051-00
CC 5-3 (Agrochemical Bioregulators)
ST synergism insecticide microbicide herbicide rice
IT Fungicides
Herbicides
Insecticides
Molluscicides
(in synergistic pesticides for rice paddies)
IT Pyricularia oryzae
(synergistic pesticides for rice paddies for control of)
IT 15263-52-2, Cartap hydrochloride 50512-35-1, Isoprothiolane 122548-33-8, Imazosulfuron 125306-83-4, Cafenstrole 210880-92-5, Clothianidin
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(in synergistic pesticides for rice paddies)
IT 108-62-3, Metaldehyde 27605-76-1 41814-78-2 51218-49-6, Pretilachlor 57369-32-1 73250-68-7, Mefenacet 79540-50-4, Etobenzanid 85785-20-2, Esprocarb 88678-67-5, Pyributicarb 104030-54-8 110956-75-7, Pentoxazone 115852-48-7 135158-54-2 152542-38-6 153197-14-9, Oxaziclomefone 158237-07-1, Fentrazamide
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(in synergistic pesticides in rice paddies)
IT 427893-57-0
RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(synergistic pesticides for rice paddies)
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RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(synergistic pesticides in rice paddies)

L8 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:108925 CAPLUS Full-text
DOCUMENT NUMBER: 136:274771
TITLE: Interaction of dinotefuran and its analogues with nicotinic acetylcholine receptors of cockroach nerve cords
AUTHOR(S): Mori, Kazuki; Okumoto, Takashi; Kawahara, Nobuyuki; Ozoe, Yoshihisa
CORPORATE SOURCE: Department of Life Science and Biotechnology, Shimane University, Shimane, 690-8504, Japan
SOURCE: Pest Management Science (2002), 58(2), 190-196
CODEN: PMSCFC; ISSN: 1526-498X
PUBLISHER: John Wiley & Sons Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To investigate the action of dinotefuran (MTI-446, 1-methyl-2-nitro-3-(tetrahydro-3-furylmethyl)guanidine), a recently developed insecticide, on insect nicotinic acetylcholine receptors (nAChRs), we determined the potencies of the compound and 22 analogs in inhibiting the specific binding of [3H]epibatidine (EPI), a nAChR agonist, and [3H]α-bungarotoxin (α-BGT), a comparative nAChR antagonist, to the nerve cord membranes of American cockroaches (Periplaneta americana). Racemic dinotefuran inhibited [3H]EPI binding with an IC50 of 890 nM and [3H]α-BGT binding with an IC50 of 36.1 μM. Scatchard anal. indicated that the dinotefuran inhibition of [3H]EPI binding was a competitive one. Slight structural modification caused a drastic reduction in potency; only four analogs were found to be equipotent to or more potent than dinotefuran. Chloropyridinyl and chlorothiazolyl neonicotinoid insecticides displayed two or three orders of magnitude higher potency than dinotefuran. There was a good correlation between the IC50 values of tested compds. obtained with [3H]EPI and those obtained with [3H]α-BGT. A better correlation was observed between 3-h knockdown activities (KD50) against German cockroaches (Blattella germanica) and IC50 values obtained from [3H]EPI assays than between 24-h lethal activities (LD50) and IC50 values. While the results indicate that dinotefuran and its analogs interact with the ACh-binding site in cockroach nAChRs, it remains to be elucidated why they displayed lower potencies than those expected based on their insecticidal activities.
TI Interaction of dinotefuran and its analogues with nicotinic acetylcholine receptors of cockroach nerve cords
CC 5-4 (Agrochemical Bioregulators)
IT 135410-20-7, Acetamiprid 138261-41-3, Imidacloprid 150824-47-8, Nitenpyram 153719-23-4, Thiamethoxam 210880-92-5, Clothianidin
RL: BSU (Biological study, unclassified); BIOL (Biological study)

(interaction with nicotinic acetylcholine receptors of cockroach nerve
cords as compared ro dinotefuran and its analogs)
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 15 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2001:423412 CAPLUS Full-text
DOCUMENT NUMBER: 135:30294
TITLE: Synergistic insecticidal compositions containing oxadiazoline derivatives, insect control,
and enhancement of insecticidal action of the derivatives
INVENTOR(S): Akayama, Atsuo
PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 67 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001158785	A	20010612	JP 1999-340604	19991130 <--

PRIORITY APPLN. INFO.: JP 1999-340604 19991130 <--
OTHER SOURCE(S): MARPAT 135:30294
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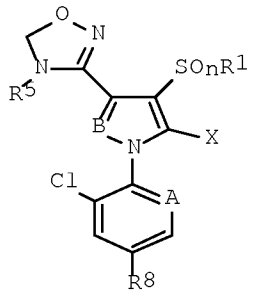

I

AB Insecticidal compns. contain the derivs. I [R1 = C1-6 alkyl, C1-6 haloalkyl; n = 0, 1, 2; X = NR2R3 (R2, R3 = H, C1-6 alkyl which may be substituted with pyridyl), N:CHOR4 (R4 = C1-6 alkyl), N:CHNR6R7 (R6, R7 = H, C1-6 alkyl), N:CHAr (Ar = Ph which may be substituted with OH or C1-3 alkoxy), pyrrolyl; R5 = (un)substituted alkyl, (un)substituted acyl; R8 = halo, C1-6

haloalkyl, C1-6 haloalkoxy, Ph which may be substituted with C1-6 haloalkyl; A = N, CR9 (R9 = Cl, cyano); B = N, CH] or their salts and other agrochem. components such as insecticidal clothianidin, nitenpyram, cartap hydrochloride, bensultap, pyraclofos, etc. Insects are controlled by combined use of I or their salts with the other agrochem. components. Insecticidal activity of I or their salts is enhanced by combined use with the other agrochem. components. I (n =1, R1 = R8 = CF3, R5 = CONMe2, A = CCl, B = N, X = N:CHOCHMe2) (preparation given) and clothianidin showed synergistic action against Plutella maculipennis larvae in pot culture of cabbage. Agrochem. formulations containing I were also given.

L8 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2000:349202 CAPLUS Full-text
DOCUMENT NUMBER: 132:344443
TITLE: Synergistic fungicidal compositions.
INVENTOR(S): Mauler-Machnik, Astrid; Wachendorf-Neumann, Ulrike;
Gayer, Herbert
PATENT ASSIGNEE(S): Bayer A.-G., Germany
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

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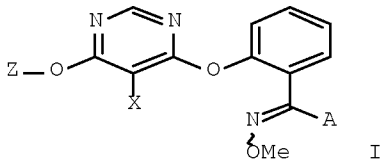

I

AB The title compns. comprise the pyrimidine derivs. I [Z = (un)substituted Ph; X = halo; A = heterocyclyl, CO2Me or CHNHMe] and any of a large number of known fungicides.
TI Synergistic fungicidal compositions.
IC ICM A01N043-54
CC 5-2 (Agrochemical Bioregulators)
ST pyrimidine deriv fungicide synergism
IT Fungicides

L8 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1999:549118 CAPLUS Full-text
DOCUMENT NUMBER: 131:181124
TITLE: Aqueous formulations for combating parasitic insects and acarina on humans
INVENTOR(S): Sirinyan, Kirkor; Horn, Karin; Stocker, Ronald Helmut; Sonneck, Rainer
PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9941987	A1	19990826	WO 1999-EP878	19990210 <--

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RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

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PRIORITY APPLN. INFO.: DE 1998-19807630 A
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WO 1999-EP878 W
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OTHER SOURCE(S): MARPAT 131:181124
AB The invention relates to aqueous formulations for combating parasitic insects and acarina on the skin of human beings, having the following composition: agonists or antagonists of nicotinic acetylcholine receptors of insects, such as imidacloprid, at 0.0001-7.5 weight %; water, at 20-50 weight %; acyclic alcs., at 20-50 weight %; solvents from the group of cyclic carbonates or lactones,.5-20.0 weight %; and, optionally, other adjuvants from the group of thickening agents, antioxidants, expanding agents, preserving agents, deposit builders and emulsifiers, at ≥30 weight %.
TI Aqueous formulations for combating parasitic insects and acarina on humans
IC ICM A01N051-00

ICS A01N061-00; A01N051-00; A01N043-08; A01N031-02; A01N025-02;
A01N061-00; A01N043-08; A01N031-02; A01N025-02
CC 5-4 (Agrochemical Bioregulators)
IT Nicotinic agonists
Nicotinic antagonists
Pesticide formulations
(aqueous ectoparasiticidal formulation for humans)
IT 58842-20-9 101336-63-4 101336-64-5 105827-70-1 105828-97-5
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171103-04-1 172333-79-8 172333-80-1 172333-81-2 185043-87-2
210880-92-5, Ti 435
RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(aqueous ectoparasiticidal formulation for humans)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1999:549117 CAPLUS Full-text
DOCUMENT NUMBER: 131:166526
TITLE: Aqueous formulations of animal ectoparasiticides
INVENTOR(S): Sirinyan, Kirkor; Dorn, Hubert; Heukamp, Ulrich
PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
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LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

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WO 9941986	A1	19990826	WO 1999-EP875	19990210 <--

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,

TR, TT, UA, UG, US, UZ, VN, YU, ZW
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

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OTHER SOURCE(S): MARPAT 131:166526
AB The invention relates to aqueous formulations for combating parasitic insects and acarina on the skin of animals, having the following composition: (a) agonists or antagonists of nicotinic acetylcholine receptors of insects, at 1-20 weight %; (b) water, at 2.5-15 weight %; (c) solvents from the group of alcs., such as benzyl alc., tetrahydrofurfuryl alc. or optionally-substituted pyrrolidone, at ≥20 weight %; (d) solvents from the group of the cyclic carbonates or lactones. at 5-50.0 weight %; (e) optionally, other adjuvants from the group of the thickening agents, spreading agents, colorants, antioxidants, expanding agents, preserving agents, deposit builders and emulsifiers, at 0.025-10 weight %.
TI Aqueous formulations of animal ectoparasiticides
IC ICM A01N051-00
ICS A01N061-00; A01N051-00; A01N043-36; A01N043-08; A01N031-04; A01N025-02; A01N061-00; A01N043-36; A01N043-08; A01N031-04; A01N025-02
CC 5-4 (Agrochemical Bioregulators)
Section cross-reference(s): 2
IT Nicotinic agonists
Nicotinic antagonists
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RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)